

Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

Claim 1 (canceled).

2 (previously presented). A device according to claim 9 further comprising a tilt mechanism for controlling the orientation of said device.

Claims 3-7 (canceled).

8 (previously presented). A device according to claim 9 wherein said fluid removal mechanism comprises a valve or a pump.

9 (previously presented). A device for conducting processing steps on a substrate comprising an array of chemical compounds on a surface thereof, said device comprising:

(a) a housing comprising a housing chamber configured to retain any fluid introduced into said housing chamber, said fluid having a meniscus,

(b) an opening in said housing adapted for insertion into said housing chamber of a substrate having a surface comprising an array of chemical compounds,

(c) a fluid separation mechanism configured to separate fluid in said housing chamber from contact with said substrate in a controlled manner that preserves the integrity of the fluid meniscus at the atmosphere-fluid interface, wherein said fluid separation mechanism is a fluid removal mechanism for removing fluid from said housing chamber in said controlled manner,

said fluid removal mechanism comprising a valve having a varying cross-section relative to height of fluid in said housing chamber,

(d) at least one inlet in fluid communication with said housing chamber, and (e) at least one outlet in fluid communication with said housing chamber.

10 (previously presented). A device according to claim 9 wherein said fluid removal mechanism comprises a pump having a constant displacement.

11 (previously presented). A device according to claim 9 further comprising a temperature controller.

Claim 12 (canceled).

13 (previously presented). A device according to claim 48 further comprising a pair of flexible members adjacent said wedge.

14 (previously presented). A device according to claim 9 further comprising a means for cooling a fluid.

15 (previously presented). A device according to claim 9 further comprising a heat exchanger for heating and/or cooling a fluid.

16 (previously presented). A device according to claim 9 further comprising a solvent vapor generator.

Claims 17-45 (canceled).

46 (previously presented). A flow device comprising:

(a) a reaction chamber having an opening for insertion of a substrate into said reaction chamber, said substrate having a cover slide over a surface thereof wherein said surface comprises a plurality of biopolymers, and

(b) a separator mechanism for separating said substrate surface from said cover slide while in said reaction chamber without damage to said biopolymers on said surface, said separator mechanism comprising a pair of flexible members having a wedge member therebetween disposed to insert between and separate said substrate surface from said cover slide.

Claim 47 (canceled).

48 (previously presented) The device of claim 9 further comprising a wedge positioned to insert between and separate a sandwich of said substrate and a cover slide positioned in said housing chamber to expose said surface of said substrate to fluid within said housing chamber.

49 (previously presented) The flow device of claim 46, wherein said separator mechanism is configured to separate said substrate from said cover slide to expose said plurality of biopolymers to fluid within said housing chamber.

50 (previously presented). The flow device of claim 46, wherein said wedge member is positioned to separate said substrate from said cover slide to expose said plurality of biopolymers to fluid within said housing chamber.

51 (canceled)

52 (previously presented) The flow device of claim 46, wherein said separator mechanism is configured to part said substrate from said cover slide to expose said plurality of biopolymers to fluid within said housing chamber.

53 (previously presented). The flow device of claim 46, wherein said wedge member is positioned to part said substrate from said cover slide to expose said plurality of biopolymers to fluid within said housing chamber.

54-55 (canceled)